

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A transgenic ~~non-human mammal~~ selected from the group consisting of bovine, horse, pig, goat, rabbit, dog, cat, mouse, rat, hamster, and guinea pig, comprising a transferred recombinant mouse GANP gene or ~~human~~ GANP gene encoding and expressing a protein of SEQ ID NO: 2 or 4 or progeny thereof encoding and expressing said protein, wherein said transgenic ~~non-human mammal~~ mouse produces high affinity antibody-producing B cells.
2. (Currently Amended) The transgenic ~~non-human mammal~~ mouse according to claim 1, wherein the GANP gene is expressed in B cells of the transgenic mouse ~~non-human mammal~~, or its progeny.
- 3-4. (Canceled)
5. (Currently Amended) A part of a transgenic ~~non-human mammal~~ selected from the group consisting of bovine, horse, pig, goat, rabbit, dog, cat, mouse, rat, hamster, and guinea pig, comprising a transferred recombinant mouse GANP gene or ~~human~~ GANP gene encoding and expressing a protein of SEQ ID NO: 2 or 4, or progeny thereof encoding and expressing said protein, wherein said part of the transgenic ~~non-human mammal~~ mouse produces high affinity antibody-producing B cells.

6. (Currently Amended) A method of producing a high affinity antibody, comprising:
administering an antigen to the transgenic ~~non-human mammal~~ mouse according to claim
1 or its progeny;
waiting for a time sufficient for said ~~non-human mammal~~ mouse to generate antibodies to
said antigen; and
recovering the antibody from the resultant ~~mammal~~ mouse or progeny.

7-11. (Cancelled)

12. (Currently Amended) A high affinity-antibody producing cell which is taken from a transgenic ~~non-human mammal selected from the group consisting of bovine, horse, pig, goat, rabbit, dog, cat, mouse, rat, hamster, and guinea pig~~, comprising a transferred recombinant mouse GANP gene or human GANP gene encoding and expressing a protein comprising SEQ ID NO: 2 or 4, or progeny thereof encoding and expressing said protein, and wherein said transgenic ~~mammal~~ mouse or its progeny has been administered an antigen.

13. (Previously Presented) The method according to claim 6, comprising:
obtaining blood from the mouse after administration of the antigen, separating and
purifying antibodies from the blood to recover the antibody.

14. (Previously Presented) The method according to claim 6, wherein the antigen is
administered two to three times at intervals of from 7 to 30 days.

15. (Previously Presented) The method according to claim 6, wherein an administration dose of the antigen is from 0.05 mg to 2 mg.

16. (Previously Presented) The method according to claim 6, wherein the route of administration is subcutaneous, dermal, intraperitoneal, intravenous or intramuscular.

17. (Currently Amended) The transgenic non-human mammal mouse according to claim 1, wherein said GANP gene is operably linked to a human IgG enhancer, or its progeny.

18. (Previously Presented) The method according to claim 6, wherein said GANP gene is operably linked to a human IgG enhancer.

19. (Previously Presented) The cell according to claim 12, wherein said GANP gene is operably linked to a human IgG enhancer, or its progeny.